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Patentee: Canich  
Serial No.: 07/533,245, filed  
06/04/90, now Patent No.  
5,055,438, issued 10/08/91  
For: OLEFIN POLYMERIZATION  
CATALYSTS  
Accorded Benefit of: U.S.  
S.No. 07/406,495, filed  
09/13/89, now abandoned

Pursuant to the APJ's decision on preliminary motions,  
Interference No. 102,955 is redeclared as follows:

(1) Canich reissue application, Ser. No. 963,833 is  
added to the proceeding;

(2) Count 1 is deleted and count 2 is substituted  
therefore; and

(3) the claims that correspond to the new count are as  
follows:

Canich patent: Claims 1-7.

Canich reissue application: Claims 1-8.

Stevens et al.: Claims 5, 6, 24, 27 and 28.

Patent No. 5,055,438

Junior Party

Patentee: Jo Ann M. Canich

Address: 900 Henderson Avenue, #808, Webster, TX 77058

Serial No.: 07/533,245, filed 06/04/90, now Patent No. 5,055,438,  
issued 10/08/91

For: OLEFIN POLYMERIZATION CATALYSTS

Assignee: Exxon Chemical Patents, Inc., Linden, NJ

Attorneys of Record: Bend C. Cadenhead and Myron B. Kurtzman

Associate Attorney: David Plant, W. Edward Bailey, Glenn A.  
Ousterhout, Donald L. Rhoads, Ronald A.  
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Accorded Benefit of: U. S. Ser. No. 07/406,945, filed 09/13/89,  
now abandoned

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Patent No. 5,055,438

Canich Reissue Application is added to the Proceeding:

Junior Party

Applicant: Jo Ann M. Canich

Address: 900 Henderson Avenue, #808, Webster, Tx 77058

Re Serial No.: 07/963,833 filed 10/20/92

For: OLEFIN POLYMERIZATION CATALYSTS

Assignee: Exxon Chemical Patents, Inc., Linden, NJ

Attorneys of Record: Ben C. Cadenhead and Myron B.  
Kurtzman

Associate Attorney: David W. Plant, W. Edward Bailey, Glenn A.  
Ousterhout, Donald L. Rhoads and Ronald A. Krasnow

Accorded Benefit of: Ser. Nos. 07/533,245, filed 06/04/90, now  
U.S. Patent No. 5,055,438, granted 10/08/91;  
07/406,495, filed 09/13/89, now abandoned.

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Patent No. 5,055,438

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Serial No: 07/ 545,403, filed 07/03/90

For: CONSTRAINED GEOMETRY ADDITION POLYMERIZATION CATALYSTS, PROCESSES FOR THEIR PREPARATION, PRECURSORS THEREFOR, METHODS OF USE, AND NOVEL POLYMERS FORMED THEREWITH

Assignee: The Dow Chemical Company

Attorneys: Douglas N. Deline, Bruce M. Kanuch and Richard G. Waterman

Associate Attorney: Keith V. Rockey and Charles L. Gholz

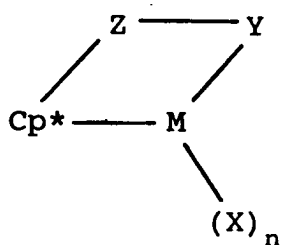
Accorded Benefit of: U.S. Ser. No. 07/401,344 filed 08/31/89, now abandoned

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Count 2

A catalyst useful in addition polymerizations comprising the following components:

a) A metal coordination complex corresponding to the formula:



wherein:

M is a metal of group 4 of the periodic table of the elements;

Cp\* is a cyclopentadienyl or substituted cyclopentadienyl group bound in an  $\eta^5$  bonding mode to M;

Z is a moiety comprising boron, or a member of group 14 of the periodic table of the elements, and optionally sulfur or oxygen, said moiety having up to 20 non-hydrogen atoms, and optionally Cp\* and Z together form a fused ring system;

X independently each occurrence is an anionic ligand group or neutral Lewis base ligand group having up to 30 non-hydrogen atoms;

n is 0, 1, 2, 3, or 4 depending on the valence of M; and

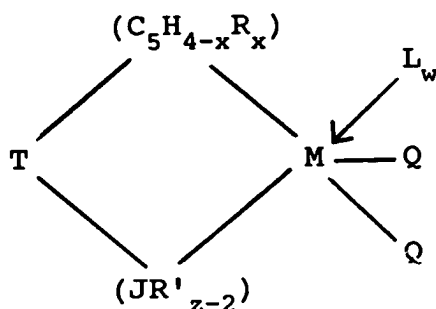
Y is an anionic or nonanionic ligand group bonded to Z and M comprising nitrogen, phosphorus, oxygen or sulfur and having up to 20 non-hydrogen atoms, optionally Y and Z together form a fused ring system; and

b) an alkylaluminoxane activating cocatalyst.

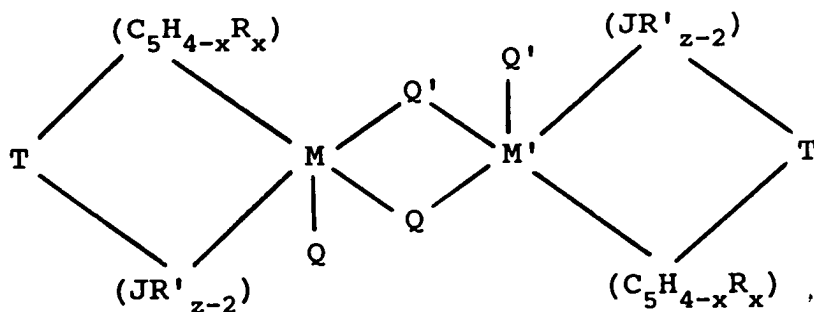
or

A catalyst system comprising:

(a) a Group IV B transition metal component of the formula:



or



wherein "M" is Zr, Hf or Ti;

$(C_5H_{4-x}R_x)$  is a cyclopentadienyl ring which is substituted with from zero to four substituent groups "R", "x" is 0, 1, 2, 3 or 4 denoting the degree of substitution, and each substituent group "R" is, independently, a radical selected from a group consisting of  $C_1$ - $C_{20}$  hydrocarbyl radicals, substituted

$C_1-C_{20}$  hydrocarbyl radicals wherein one or more hydrogen atoms are replaced by a halogen atom,  $C_1-C_{20}$  hydrocarbyl-substituted metalloid radicals wherein the metalloid is selected from the Group IV-A of the Periodic Table of Elements, and halogen radicals or  $(C_5H_{4-x}R_x)$  is a cyclopentadienyl ring in which two adjacent "R" groups are joined forming a  $C_4-C_{20}$  ring to give a saturated or unsaturated polycyclic cyclopentadienyl ligand;

$(JR'_{z-2})$  is a heteroatom ligand in which "J" is an element with a coordination number of three from Group V-A or an element with a coordination number of two from Group VI-A of the Periodic Table of Elements, each "R'" is a radical selected from a group consisting of  $C_1-C_{20}$  hydrocarbyl radicals, substituted  $C_1-C_{20}$  hydrocarbyl radicals wherein one or more hydrogen atoms is replaced by a halogen atom, and "z" is the coordination number of the element "J";

each "Q" is, independently any univalent anionic ligand or two "Q"'s are a divalent anionic chelating ligand, provided that "Q" is different from  $(C_5H_{4-x}R_x)$ ;

"y" is 0 or 1 when "w" is greater than 0; "y" is 1 when "w" is 0;

"T" is a covalent bridging group containing a Group IV-A or V-A element;

Patent No . 5,055,438 .

"L" is a neutral Lewis base where "w" is a number from  
0 to 3;

"M'" has the same meaning as "M"; and

"Q'" has the same meaning as "Q"; and


(B) an alumoxane.

The claims that correspond to the new count are as  
follows:

Canich patent: Claims 1-7.

Canich reissue application: Claims 1-8.

Stevens et al.: Claims 5, 6, 24, 27 and 28.

  
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Mary F. Downey,  
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MFD/raj